IZA500GR Rev. F5 Technical Datasheet

ALPR All-in-one AI Camera System

Rev. F5

Key Features and Benefits

✓ Designed for Parking, Car Wash, Access Control and Security

✓ NVIDIA® Artificial Intelligence (AI) GPU processor for lightning fast processing at the edge

✓ RoadView video analytics on edge for in-depth vehicle analysis

✓ Integrated with IZCloud

✓ Dual sensor provides multiple paths to perfect ALPR reads

✓ Motorized zoom and auto-focus - the key to optimized remote tuning

✓ Anti-glare technology for all lighting environments

✓ Supports PoE++ power option for easy installation**

✓ Wide temperature range - operating from -22°F to 140°F (-30°C to 60°C)

✓ IP67 ingress protection against extreme moisture

✓ IK10 vandal-proof casting for efficient, worry-free operation

✓ NDAA Section 889 compliant

Specifications

Item		Specification
Supported Analytics	LPR Analytics	Plate Recognition, State Identification, Plate Type
	Vehicle Analytics	Vehicle Detection, Classification, Color, Make; Vehicle Without Plate
Field of View (FOV)		12 ft (H) x 8 ft (V) (3.7 x 2.4 m)
Max Vehicle Speed		Up to 40 mph (64 km/h)
LPR Capture Distance* (for U.S.A. plates)		5-40 ft (1.5-12 m)
LPR Illumination	Number of LEDs	• DR, IR -15 high power LEDs • DRW, IRW - 10 high power LEDs
	Wavelength	• DR - Deep Red • IR - Infrared
	Beam Angle	40°x16°
LPR Camera	Shutter Type	Rolling
	Sensor	Sony IMX290
	Resolution	2 MP - 1920 (H) x 1080 (V)
	Lens	5-50 mm; Motorized Zoom and Auto-focus
	Video Compression	MJPEG, H.264, H.265
	Video Streaming	RTSP Protocol
OV Illumination	Number of LEDs	• DR, IR - No visible light LEDs • DRW, IRW - 5 high power LEDs
	Wavelength	• DR, IR - N/A • DRW, IRW - Visible, Warm White
	Beam Angle	40°x16°

Item		Specification
OV Camera	Shutter Type	Rolling
	Sensor	Sony IMX290
	Resolution	2 MP - 1920 (H) x 1080 (V)
	Lens	5-50 mm; Motorized Zoom and Auto-focus
	Video Compression	MJPEG, H.264, H.265
	Video Streaming	RTSP Protocol
Supported Protocols (for additional protocols, see the RoadView documentation)	Inex HTTP API	LPR Events are reported via protocols such as the Inex HTTP API protocol. Each LPR Event includes metadata and associated images.
	Inex Discovery	The Inex Discovery Protocol is used by the IZ Discovery utility to find all devices connected to the LAN. IZ Discovery also enables display and editing of each device's network settings.
AI Processor	GPU	NVIDIA Maxwell architecture with 128 CUDA® cores
	CPU	Quad-core ARM Cortex-A57 MPCore processor
	RAM	4 GB 64-bit LPDDR4, 1600MHz 25.6 GB/s
	System Storage	SSD, 64 GB
	Data Storage	SSD, 64 GB***
	Operating System	NVIDIA Jetson Linux (L4T), JetPack 4.6.6
	RTC Battery	Maintains real-time clock date and time for 4-6 hours
		Rechargeable; Full charge-up time: 12 hours
Environmental	Ingress Protection	IP67
	Operating Temperature	-22°F to 140°F (-30°C to 60°C)
	Storage Temperature	-22°F to 158°F (-30°C to 70°C)
	Humidity	0% - 95% RH

Item		Specification
Certifications	EMC	FCC Part 15, subpart B; CE
	Interoperability	ONVIF compliant, Profile S
	RoHS	RoHS
	Impact Protection	IK10-rated casting (Vandal-proof)
	Eye Safety	IEC62471 Group 1
	NDAA	NDAA Section 889 compliant
Physical	Dimensions	(W x H x D) 6.7" x 4.7" x 17.7" (171 x 119 x 451 mm)
	Weight	9.0 lbs (4.1 kg)
	Color	White
Interface	Ethernet	GigE Ethernet (10/100/1000M)
	Cables	LAN - 6.6 (2 m) cable included with camera, terminated with a male RJ-45 connector; can be extended with: CAT 6, shielded Ethernet cable, 4 pairs, 22 AWG, max. length 328 ft (100 m), OD 5.5-7.9 mm
		Power/Signals (PAS) - 6.6 (2 m) cable included with camera; can be extended with: 22 AWG, OD 3.0-7.3 mm • 3-wire power cable, shielded with a polyethylene jacket; ends terminated with metal rings • Digital input (trigger) signal wires and relay output connections (see next items)
	Digital Inputs (Trigger)	• Trigger Dry: White (+), Green (-) • Trigger Wet: Green (+5-12 V), Blue (GND)
	Relay Output	• Dry Contact Relay: Brown (NO), Orange (C)
Power	Input Voltage Options	• 24 VDC +/- 10%, Class 2 Low-Voltage • With P24 model suffix: 24 VDC +/- 10%, Class 2 Low-Voltage or PoE++ IEEE 802.3bt (Type 3, Class 6)**
	Power Consumption	30 W
Accessories Included		Sunshade

Item	Specification
Accessories Available	DIN Rail Mount Power Supplies (IZPWR)
	DIN Rail Mount Gigabit PoE++ Injector** (IZ1POE, IZ2POE, IZ4POE)
	Digital I/O Controller (IZIO)
	Different mount options available

* LPR Capture Distance is measured from camera to plate

** Works with standard PoE++ switches, or an Inex IZxPOE PoE++ injector
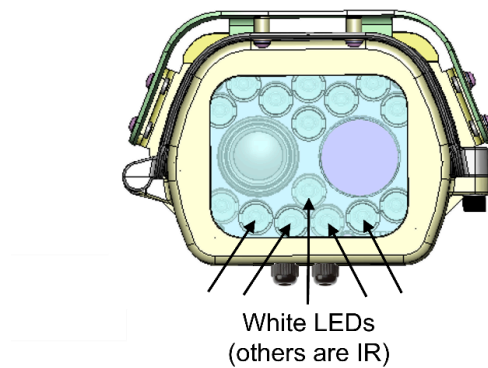
*** 64 GB minimum guaranteed

Ordering Information

Part Number****	Description
IZA500GR-DR	5-40 ft (1.5-12 m) range, Deep Red illumination, 24 VDC input voltage
IZA500GR-DR-P24	5-40 ft (1.5-12 m) range, Deep Red illumination, PoE++, 24 VDC input voltage
IZA500GR-DRW	5-40 ft (1.5-12 m) range, Deep Red and Visible Light illumination, 24 VDC input voltage
IZA500GR-DRW-P24	5-40 ft (1.5-12 m) range, Deep Red and Visible Light illumination, PoE++, 24 VDC input voltage
IZA500GR-IR	5-40 ft (1.5-12 m) range, Infrared illumination, 24 VDC input voltage
IZA500GR-IR-P24	5-40 ft (1.5-12 m) range, Infrared illumination, PoE++, 24 VDC input voltage
IZA500GR-IRW	5-40 ft (1.5-12 m) range, Infrared and Visible Light illumination, 24 VDC input voltage
IZA500GR-IRW-P24	5-40 ft (1.5-12 m) range, Infrared and Visible Light illumination, PoE++, 24 VDC input voltage

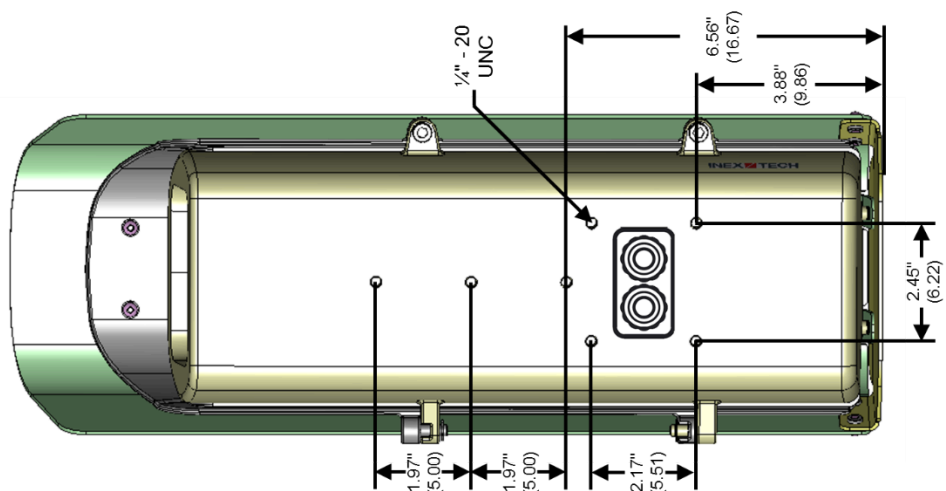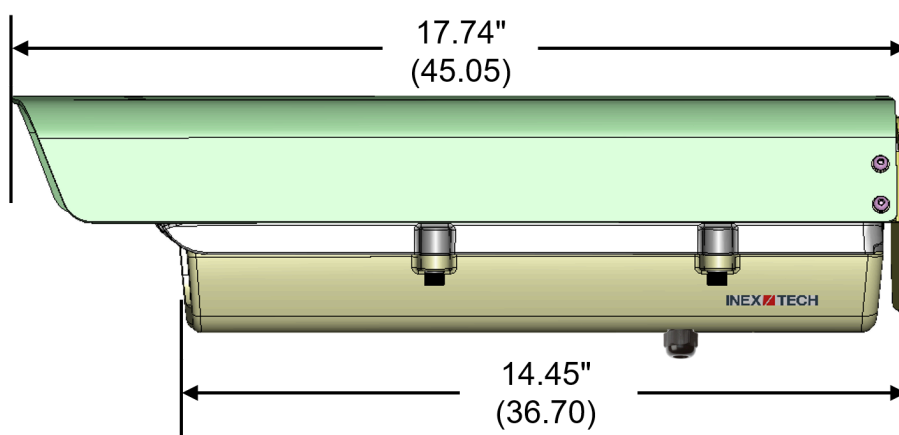**** The same Camera Systems can be ordered using IZA500GRS- in the part number.
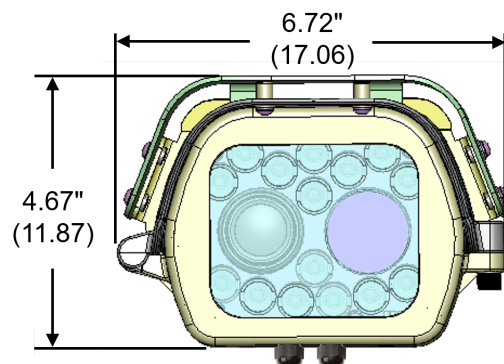
Standard Package Contents
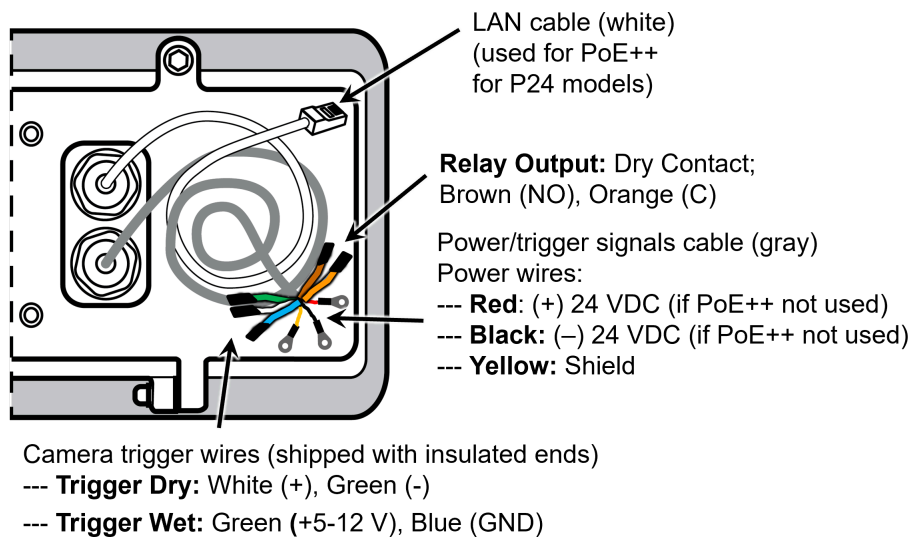
- IZA500GR ALPR All-in-one AI Camera System

IZA500GR-DRW, IRW LED Positions

White LEDs
(others are IR)

Dimensions (inches/cm)

6.72"
(17.06)

4.67"
(11.87)

17.74"
(45.05)

14.45"
(36.70)

INEX⬛TECH

¼" – 20
UNC

6.56"
(16.67)

3.88"
(9.86)

2.45"
(6.22)

INEX⬛TECH

1.97"
(5.00)

1.97"
(5.00)

2.17"
(5.51)

LAN and Power/Signals Cable Details

LAN cable (white)
(used for PoE++
for P24 models)

Relay Output: Dry Contact;
Brown (NO), Orange (C)

Power/trigger signals cable (gray)
Power wires:
--- **Red**: (+) 24 VDC (if PoE++ not used)
--- **Black:** (−) 24 VDC (if PoE++ not used)
--- **Yellow:** Shield

Camera trigger wires (shipped with insulated ends)
--- **Trigger Dry:** White (+), Green (-)
--- **Trigger Wet:** Green **(**+5-12 V), Blue (GND)

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